Reserve

Efficiency Pays

- 1. Grow an abundance of high-quality roughage
- 2. Balance your herd with your feed supply
- 3. Keep production records on each cow in your herd
- 4. Practice disease-control methods
- 5. Produce milk and cream of the highest quality
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## 1. Grow an abundance of high-quality roughage

Why!

Roughage (pasturage, hay, or silage) is the cow's natural feed. She cannot remain in good health nor live long without it. She needs it to keep her digestive processes working properly. The average cow also must depend on roughage for 95 percent of the vitamin A she needs for good health, for normal calving, and for the production of milk rich in vitamin A.

Roughage varies greatly in quality, however, both in nutrient content and in palatability. These quality factors are influenced by the kind of crop and also by the methods of harvesting and preserving the crops. Legumes, for example, contain more protein than nonlegumes; early-cut hays contain more protein and are more palatable than mature hays; crops cured and stored so as to retain their green color are richer in vitamin A; and silage made from good quality grasses or legumes is more palatable and nutritious than weather-damaged hay crops.

The quality of the roughage you offer your cows is important primarily for two reasons. First, the more palatable it is the more they will eat; and second, the more they eat and the higher the nutrient content, the less grain they will need for maximum milk yield. Cows will eat enough good quality roughage to produce up to 75 percent of their maximum milk yield on the roughage alone. The importance of that fact is that roughage crops usually are a much cheaper source of feed mutrients than the grains or other concentrated feeds.

Good pastures save feed and labor.

What to do!

## 2. Balance your herd with your feed supply

Why!

On most livestock farms, the production of feed is basic. On dairy farms, cows are milked as a means of realizing a better return from the homegrown roughage and grain than could be obtained by marketing these crops through other livestock or directly for cash.

There is a nutritional need for all the milk and cream that will be produced. For the most efficient milk production, the size of the dairy herd should be in balance with your roughage supply. Every milking cow should have all the roughage she can eat at all times, whether concentrated feeds are fed or not.

Keeping as many cows as are needed to consume all your good quality roughage will insure you a maximum return from your dairy enterprise. There is no advantage however in keeping more cows than can be provided with adequate amounts of good roughage. If your available feed supply - particularly hay, pasturage, and other roughage - is inadequate to feed every cow liberally it will be more economical to discard some of the lower milk producers and feed the rest all they need. Good cows fed to capacity will usually produce more milk at lower cost than a larger number of cows poorly fed.

## 3. Keep production records on each cow in your herd

Why!

Cows differ greatly in their capacity to use feed for the production of milk. Cows that do not get as much feed as they could use for milk production get thin, and the milk flow declines. Many cows that get more feed than they can turn into milk use the extra feed to lay on flesh. This is usually wasteful.

The quantity and test of the milk each cow is producing from day to day is the only reliable guide to the amount of feed nutrients she needs to maintain her milk flow at a normal level. Actual weights and tests of the milk afford a satisfactory means of determining her average daily production. By this means the amount of feed nutrients she requires to keep up her milk flow can be determined.

Keeping production records on your herd will enable you to determine the exact quantity of grain and other concentrates to feed each cow, in addition to her roughage, for the most economical production at any given price relationship for feed and milk. In addition, with production records as a guide, you will be in better position to weed out the low producing cows in your herd and to select the most desirable individuals for use as breeding stock.

What to do!

### 4. Practice disease-control methods

Why!

Disease-free herds are essential for the maximum returns from dairying. Healthy cows not only produce more milk than unhealthy cows, but the milk they do produce is safer for use, and it can also be marketed to better advantage.

Herds in which no attempt is made to prevent or control disease are costly to maintain. In addition to reducing milk production and hampering its sale, diseases and other ailments make it necessary to replace the affected animals in order to maintain the size and efficiency of the herd. Mastitis interferes with both the quantity and quality of the milk produced; Bang's disease interferes with the regularity of the calving interval; and tuberculosis interferes with the general health of the herd. Animal diseases are hazardous to both the milk producer and consumer.

Sanitary methods, in milking and in all other phases of herd management, not only make it easier to produce clean safe milk of good marketable quality but such measures help also to prevent the growth and spread of disease-producing organisms on the farm. Preventive measures require less time, labor, and expense than is usually required to remedy the results of insanitary conditions and of failure to practice disease control.

A herd must be healthy to maintain its maximum efficiency.

### 5. Produce milk and cream of the highest quality

Why!

when milk production may be greater than the demand only the highest quality milk and cream will be readily marketable. Farmers constantly lose substantial amounts of money as a result of producing milk or cream that is rejected or that must be sold at lower prices because of inferior quality.

Good quality in all dairy products encourages consumers to use greater quantities. Consumption is decreased by inferior quality and off flavors. Since high quality in the dairy products depends largely on the quality of milk and cream, the task of improving the general level of quality must begin on the farm.

The prosperity of every dairy farmer and the growth of the dairy industry depend on a continued demand for large quantities of milk, cream, butter, cheese, ice cream, and other dairy products. Consumers buy these foods not only because they recognize their nutritional importance, but also because they enjoy their flavor. Palatability has much to do with the volume of dairy products consumed.

What to do!

6. Adopt labor saving methods.

Why!

Next to the cost of feed, labor is the most expensive item in the total cost of milk production. When you use hired help, a saving in man-hours of labor reduces your cash expenditures; when you do your own work, labor-saving practices and short cuts leave you more time for planning important management and business phases and also make your work easier.

Many factors affect the amount of labor required on the average dairy farm, such as climatic conditions; the size of the herd (cows, calves, young stock, bulls to care for); the use of pastures and the location and arrangement of fields and buildings with respect to feeding, milking, and washing milking equipment, cleaning barns, and handling the manure. Frequently it is possible to save time by eliminating nonessential steps or changing the method or order of doing chores. Newer knowledge of the improved methods of feeding, milking, and managing the herd is helping many dairymen save time and labor.

Changes and rearrangements often can be made to save labor and speed up the essential chores.

#### 7. Take care of your land

Why!

The land on which your cattle graze and on which you grow the feed is your basic capital and the foundation of your livelihood. It must be preserved. Unless you constantly restore the fertility that is taken from your soil by growing crops and by erosion, your land assets gradually become depleted and may eventually be exhausted entirely. Eroded lands, sparse crops, poor livestock, and run-down buildings always follow in the wake of man's failure to take care of the soil.

Soil conservation practices (use of manure, commercial fertilizers, the rotation of crops, growing legumes, drainage, and erosion control) not only help preserve your land resources but enable you to increase the yield of feed and milk per acre. Greater per acre yields reduce the unit cost of feed nutrients and make it possible to produce milk at lower costs. Furthermore, crops grown on poor soil may be deficient in feeding value.

Proper care of the soil improves its productivity and makes it easier to work. Good soil conditions are insurance against the effects of drought and crop failures in years of light rainfall, and thus contribute to the stabilization of agricultural prices in general and your own income in particular.

What to do!

# 8. Develop a sound breeding program

Why!

High-producing cows make more money than low-producing cows under similar conditions. Cows with the inherent ability to produce large quantities of milk from their feedare essential to the efficient dairy herd.

Every cow you keep must be regarded as one machine in your milkproducing factory — one that will wear out in time or that will have to
be replaced for some other reason. Failure to replace each discarded cow
with another one as good or better will soon cause your "factory" to lose
its efficiency and profitableness. The cost of raising heifer calves to
milking age is a big item of expense in any dairy herd. When a high percentage of the calves you raise turn out to be low-producing cows, the cost
of raising them must be made up by the rest of the herd.

The most satisfactory way to build a good herd and to be certain of having suitable replacements when they are needed is to adopt a breeding program. This should be founded on the use of production records and other sound practices — This will insure high producing cows when these selected calves are well fed and developed. Good proved sires offer the most promise for herd improvement, whether they are used to head individual herds or their service is obtained through cooperative bull associations or artificial breeding organizations. The sons of good proved sires out of good producing cows afford the next best opportunity for herd improvement.